

**Set Name Query**

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result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*

<u>L24</u>	l23 and polyethylene oxide	25	<u>L24</u>
<u>L23</u>	L22 and l18	45	<u>L23</u>
<u>L22</u>	L21 and l19	45	<u>L22</u>
<u>L21</u>	l15 and l17	369	<u>L21</u>
<u>L20</u>	(polyethylene glycol or polyethylene oxide)same dimethicone	298	<u>L20</u>
<u>L19</u>	(polyethylene glycol or polyethylene oxide) and dimethicone	1383	<u>L19</u>
<u>L18</u>	\$19methacrylate	159729	<u>L18</u>
<u>L17</u>	vinylpyrrolidine or vinyl pyrrolidone	12293	<u>L17</u>
<u>L16</u>	N-butyl acrylamide or N-butylacrylamide or lauryl methacrylamide or stearyl methacrylamide	737	<u>L16</u>
<u>L15</u>	l12 or l13 or l14	3171	<u>L15</u>
<u>L14</u>	tert-butyl methacrylate or t-butyl methacrylate or t-butylmethacrylate or tert-butylmethacrylate	2472	<u>L14</u>
<u>L13</u>	N-t-butylacrylamide or N-tert-butylacrylamide	603	<u>L13</u>
<u>L12</u>	t-butylacrylate or tert-butylacrylate	316	<u>L12</u>

*DB=DWPI; PLUR=YES; OP=ADJ*

<u>L11</u>	L10 and l8	0	<u>L11</u>
<u>L10</u>	l4 and l6	8	<u>L10</u>
<u>L9</u>	(polyethylene glycol or polyethylene oxide)same dimethicone	9	<u>L9</u>
<u>L8</u>	(polyethylene glycol or polyethylene oxide) and dimethicone	18	<u>L8</u>
<u>L7</u>	\$19methacrylate	47600	<u>L7</u>
<u>L6</u>	vinylpyrrolidine or vinyl pyrrolidone	2552	<u>L6</u>
<u>L5</u>	N-butyl acrylamide or N-butylacrylamide or lauryl methacrylamide or stearyl methacrylamide	12	<u>L5</u>
<u>L4</u>	l1 or l2 or l3	208	<u>L4</u>
<u>L3</u>	tert-butyl methacrylate or t-butyl methacrylate or t-butylmethacrylate or tert-butylmethacrylate	159	<u>L3</u>
<u>L2</u>	N-t-butylacrylamide or N-tert-butylacrylamide	36	<u>L2</u>
<u>L1</u>	t-butylacrylate or tert-butylacrylate	18	<u>L1</u>

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 25 of 25 returned.**☐ 1. Document ID: US 20020034486 A1

L24: Entry 1 of 25

File: PGPB

Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034486  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020034486 A1

TITLE: Leave-in hair cosmetic compositions for enhancing volume

PUBLICATION-DATE: March 21, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Midha, Sanjeev	Mason	OH	US	
Thomson, Shari Renee	Cincinnati	OH	US	
Snyder, Michael Albert	Kobe		JP	

US-CL-CURRENT: 424/70.2

## ABSTRACT:

Leave-in hair cosmetic compositions for enhancing hair volume comprise non-spherical microparticles exhibiting a mean particle size of less than about 100 .mu.m in its longest dimension, a water-soluble or water-swellaable polymer, and an aqueous carrier such that the combination of the polymer and the microparticles results in a film-forming network. Also disclosed are methods for enhancing hair volume, and more particularly for enhancing hair volume with leave-in aqueous cosmetic compositions which contain non-spherical microparticles of less than 100 .mu.m in its longest dimension, a water-soluble or water-swellaable polymer and an aqueous carrier. The disclosed compositions provide improved hair volume, body, bounce, fullness, springiness, and texture in addition to providing good hair conditioning and styling benefits. Fluid-encapsulated, flexible microspheres which exhibit a mean particle size of less than about 300 .mu.m in diameter may also be included in the compositions.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIG	Draw Deso	Image
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☐ 2. Document ID: US 20020012645 A1

L24: Entry 2 of 25

File: PGPB

Jan 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020012645  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020012645 A1

TITLE: Leave-in hair cosmetic compositions for enhancing volume containing fluid-encapsulated, flexible microspheres

PUBLICATION-DATE: January 31, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Midha, Sanjeev	Mason	OH	US	
Thomson, Shari Renee	Cincinnati	OH	US	
Stella, Qing	Cincinnati	OH	US	
Snyder, Michael Albert	Higashinada		JP	

US-CL-CURRENT: 424/70.2

## ABSTRACT:

Leave-in hair cosmetic compositions for enhancing hair volume comprise fluid-encapsulated, flexible microspheres exhibiting a mean particle size of less than about 300 .mu.m in diameter, a water-soluble or water-swellaable polymer, and an aqueous carrier such that the combination of the polymer and the microspheres results in a solid continuous or semi-continuous film network. Methods for enhancing hair volume, and more particularly for enhancing hair volume, comprise applying leave-in aqueous cosmetic compositions which contain spherical, flexible, fluid-encapsulated particles of less than about 300 .mu.m in diameter, a water-soluble or water-swellaable polymer and an aqueous carrier. The compositions provide improved hair volume, body, bounce, fullness, springiness, and texture in addition to providing good hair conditioning and styling benefits.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Deso	Image
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☐ 3. Document ID: US 6335312 B1

L24: Entry 3 of 25

File: USPT

Jan 1, 2002

US-PAT-NO: 6335312

DOCUMENT-IDENTIFIER: US 6335312 B1

TITLE: Personal cleansing compositions comprising mid-chain branched surfactants

DATE-ISSUED: January 1, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Coffindaffer; Timothy Woodrow	Loveland	OH		
Vinson; Phillip Kyle	Fairfield	OH		
Cripe; Thomas Anthony	Loveland	OH		
Lanzalaco; Anthony Charles	Fairfield	OH		
Stidham; Robert Emerson	Lawrenceburg	IN		
Connor; Daniel Stedman	Cincinnati	OH		

US-CL-CURRENT: 510/159; 510/119, 510/127, 510/130

## ABSTRACT:

This invention relates to personal cleansing products which include mid-chain branched surfactants.

28 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Deso	Image
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☐ 4. Document ID: US 6177390 B1

L24: Entry 4 of 25

File: USPT

Jan 23, 2001

US-PAT-NO: 6177390

DOCUMENT-IDENTIFIER: US 6177390 B1

TITLE: Styling shampoo compositions which deliver improved hair curl retention and hair feel

DATE-ISSUED: January 23, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Guskey; Susan Marie	Montgomery	OH		
Inman; Everett Junior	Cincinnati	OH		
Desch; Teresa Ann	Loveland	OH		
Fritschi; Lynne Anne	Cincinnati	OH		
Killion; Stephanie Lynn	Cincinnati	OH		

US-CL-CURRENT: 510/119; 510/121, 510/122, 510/123, 510/127, 510/130, 510/135, 510/151, 510/152, 510/153, 510/155, 510/156, 510/242, 510/417, 510/434, 510/437, 510/466, 510/490

## ABSTRACT:

Disclosed are hair styling shampoo compositions which comprise from about 5% to about 50% by weight of a surfactant selected from the group consisting of anionic surfactants, zwitterionic or amphoteric surfactants, and combinations thereof; from about 0.1% to about 10% by weight of an organic or silicone-grafted hair styling polymer; and from about 40% to about 94.9% by weight of water; wherein the Hair Feel Index (HFI) is at least about 0.65 and the Curl Retention Value (CRV) is at least about 70. The composition provides improved styling performance and improved hair feel from a shampoo composition.

18 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 5. Document ID: US 6093410 A

L24: Entry 5 of 25

File: USPT

Jul 25, 2000

US-PAT-NO: 6093410

DOCUMENT-IDENTIFIER: US 6093410 A

TITLE: Personal care compositions

DATE-ISSUED: July 25, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peffly; Marjorie Mossman	Cincinnati	OH		
Bolich, Jr.; Raymond Edward	Maineville	OH		
Torgerson; Peter Marte	Washington Court House	OH		
Midha; Sanjeev	Blue Ash	OH		

US-CL-CURRENT: 424/401; 424/70.1

## ABSTRACT:

Emulsion compositions, suitable for personal care applications such as hair styling, and other applications, are disclosed. The compositions comprise:

a) a silicone functional polymer having the formula selected from the group consisting of:

(AB).sub.n ; ABA; BAB; ##STR1## and mixtures thereof; wherein B is a silicone moiety comprising repeating units of: ##STR2## R is independently, C1-C30 alkyl, aryl, alkylaryl, haloalkyl, H, or C1-C6 alkoxy, wherein the weight average molecular weight of each silicone moiety B is independently from about 1500 to about 50,000;

A is a polar polymeric moiety which is soluble or dispersible in mixtures of ethanol and water containing less than 60% ethanol by weight; and

n is an integer of 1 or greater;

wherein the molecular weight of the silicone functional polymer is at least about 2,000.

b) an organopolysiloxane emulsion comprising:

(i) a polyorganosiloxane dispersed as particles in the emulsion, the polyorganosiloxane having an average particle size of less than about 150 nanometers, and

(ii) a surfactant system for dispersing the organopolysiloxane in the emulsion;

c) a carrier comprising at least about 0.5%, by weight of the composition, of a first solvent selected from the group consisting of water; water soluble organic solvents; organic solvents which are strongly to moderately strong in hydrogen-bonding parameter; and mixtures thereof; wherein the first solvent is other than C.sub.1 -C.sub.3 monohydric alcohol, C.sub.1 -C.sub.3 ketone and C.sub.1 -C.sub.3 ether;

wherein the silicone functional polymer is present in an amount effective to stabilize the emulsion in the personal care composition.

25 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

NAAC Draw Desc Image

☐ 6. Document ID: US 6042819 A

L24: Entry 6 of 25

File: USPT

Mar 28, 2000

US-PAT-NO: 6042819

DOCUMENT-IDENTIFIER: US 6042819 A

TITLE: Hair treatment composition with long-lasting hair fixing properties

DATE-ISSUED: March 28, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Karlen; Thomas	Bern			CHX
Schmenger; Jorgen	Weiterstadt			DEX
Borth; Silvia	Frankisch-Crumbach			DEX
Steinbrecht; Karin	Ober-Ramstadt			DEX

US-CL-CURRENT: 424/78.17; 424/70.1, 424/70.11, 424/70.12

## ABSTRACT:

The hair treatment composition contains at least one nonionic, water-insoluble vinyl/silicone copolymer having a backbone chain of siloxane polymer units and a side chain of vinyl polymer units and at least one nonvolatile silicone derivative compound. Hair, which is treated with the composition according to the invention, has a long-lasting fixing effect, which lasts through several washings. The hair treated with the composition of the invention is flexible and has a natural feel.

12 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 7. Document ID: US 6040282 A

L24: Entry 7 of 25

File: USPT

Mar 21, 2000

US-PAT-NO: 6040282

DOCUMENT-IDENTIFIER: US 6040282 A

TITLE: Styling shampoo compositions which deliver improved hair curl retention and hair feel

DATE-ISSUED: March 21, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Guskey; Susan Marie	Montgomery	OH		
Inman; Everett Junior	Cincinnati	OH		
Desch; Teresa Ann	Loveland	OH		
Fritsch; Lynne Anne	Cincinnati	OH		
Killion; Stephanie Lynn	Cincinnati	OH		

US-CL-CURRENT: 510/119; 510/121, 510/123, 510/125, 510/130, 510/151, 510/155, 510/398, 510/422, 510/426, 510/428, 510/434, 510/466, 510/470, 510/475, 510/503

## ABSTRACT:

Disclosed are hair styling shampoo compositions which comprise from about 5% to about 50% by weight of a surfactant selected from the group consisting of anionic surfactants, zwitterionic or amphoteric surfactants, and combinations thereof; from about 0.1% to about 10% by weight of an organic or silicone-grafted hair styling polymer; and from about 40% to about 94.9% by weight of water; wherein the Hair Feel Index (HFI) is at least about 0.65 and the Curl Retention Value (CRV) is at least about 70. The composition provides improved styling performance and improved hair feel from a shampoo composition.

25 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 8. Document ID: US 6004545 A

L24: Entry 8 of 25

File: USPT

Dec 21, 1999

US-PAT-NO: 6004545

DOCUMENT-IDENTIFIER: US 6004545 A

TITLE: Hair cleansing composition with fixing properties

DATE-ISSUED: December 21, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Karlen; Thomas	Bern			CHX
Schmenger; Jurgen	Weiterstadt			DEX
Steinbrecht; Karin	Ober-Ramstadt			DEX

US-CL-CURRENT: 424/70.12; 424/47, 424/70.19, 424/70.21, 424/70.22, 424/70.31

## ABSTRACT:

The hair cleansing composition contains from 0.1 to 30 percent by weight of a dimethylsiloxanemethyl-3-mercapto-propylsiloxane/isobutylmethacrylate copolymer and from 3 to 50 percent by weight of at least one detergent surfactant. The composition can also contain dimethylsiloxane glycol copolymers and/or polydimethylsiloxanes with or without hydroxy terminal groups. This composition has a definite fixing effect as well as satisfactory hair cleaning action. The film formed on the hair after washing and drying the hair does not significantly load the hair or leave an appreciable residue.

6 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 9. Document ID: US 5997886 A

L24: Entry 9 of 25

File: USPT

Dec 7, 1999

US-PAT-NO: 5997886

DOCUMENT-IDENTIFIER: US 5997886 A

TITLE: Personal care compositions

DATE-ISSUED: December 7, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peffly; Marjorie Mossman	Cincinnati	OH		
Merritt; Joyce Ross	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/70.1, 424/70.12, 514/937

## ABSTRACT:

Relatively low VOC hair styling compositions which provide good style retention without unacceptable stickiness or stiffness are disclosed. The compositions comprise from about 0.01% to about 20%, by weight of the composition, of a hair styling polymer; and a carrier comprising at least about 0.5% to about 99.9%, by weight of the composition, of a first solvent selected from the group consisting of water; water soluble organic solvents; organic solvents which are strongly to moderately strong in hydrogen bonding parameter; and mixtures thereof; wherein the first solvent is other than C1-C3 monohydric alcohol, C1-C3 ketone, and C1-C3 ether; and from about 0% to

about 55%, by weight of the composition, of a second solvent selected from the group consisting of C1-C3 monohydric alcohols, C1-C3 ketones, C1-C3 ethers, and mixtures thereof; wherein the composition is characterized by having a Stiffness Value (SV) and a Curl Retention Index (CRI), wherein  $SV_{gtoreq}[(0.703 \times CRI) - 0.425]$ .

17 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Creation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 10. Document ID: US 5997853 A

L24: Entry 10 of 25

File: USPT

Dec 7, 1999

US-PAT-NO: 5997853  
DOCUMENT-IDENTIFIER: US 5997853 A

TITLE: Hair conditioning and styling compositions

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond Edward	Maineville	OH		
Torgerson; Peter Marte	Washington Court House	OH		

US-CL-CURRENT: 424/70.12; 424/401, 424/70.121, 523/502, 525/342, 528/31, 528/33

ABSTRACT:

Hair care compositions which provide improved styling and hair conditioning properties are disclosed. The compositions comprise from about 0.1% to about 10.0% of a specifically-defined silicone copolymer and from about 0.5% to about 99.5% of a carrier suitable for application to hair. These compositions are characterized by the fact that, when dried, the polymer phase separates into a discontinuous phase which includes a silicone macromer and a continuous phase which includes the copolymer backbone.

16 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Creation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 11. Document ID: US 5985295 A

L24: Entry 11 of 25

File: USPT

Nov 16, 1999

US-PAT-NO: 5985295  
DOCUMENT-IDENTIFIER: US 5985295 A

TITLE: Personal care compositions

DATE-ISSUED: November 16, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peffly; Marjorie Mossman	Cincinnati	OH		



US-CL-CURRENT: 424/401; 424/70.1, 424/70.12, 514/937

## ABSTRACT:

Hair compositions which provide improved styling and conditioning properties are disclosed. The compositions comprise from about 0.01% to about 20% of an anionic hair styling polymer comprising acrylate groups; from about 0.01% to about 10% of a zwitterionic hair conditioning polymer; and from about 0.5% to about 99.9% of a carrier comprising a solvent (for the hair styling polymer and the hair conditioning polymer) selected from the group consisting of water; water soluble, organic solvents; organic solvents which are strongly to moderately strong in hydrogen-bonding parameter; and mixtures thereof. These compositions provide superior style achievement and improved long lasting hold even though anionic polymer based wet styling products typically result in poor wet combing.

20 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 12. Document ID: US 5980876 A

L24: Entry 12 of 25

File: USPT

Nov 9, 1999

US-PAT-NO: 5980876

DOCUMENT-IDENTIFIER: US 5980876 A

TITLE: Hair spray compositions

DATE-ISSUED: November 9, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peffly; Majorie Mossman	Cincinnati	OH		

US-CL-CURRENT: 424/70.12; 424/45, 424/47, 424/70.19, 424/70.2, 424/70.22, 424/70.27, 424/70.31, 514/63

## ABSTRACT:

The present invention relates to hair spray compositions comprising from about 0.01% to about 2% of an ionic surfactant or a nonionic surfactant having an HLB of about 7 or less; from about 0.5% to about 15% of an ionic resin having a weight average molecular weight of at least about 300,000; and a liquid vehicle. This invention further relates to hairspray compositions comprising from about 0.5% to about 15% of an ionic, silicone macromer-containing resin as the hair setting agent, a liquid vehicle comprising a mixture of water and monohydric alcohol solvent (e.g., C.sub.1 -C.sub.3 monohydric alcohols) wherein the composition contains at least about 10%, by weight of the composition, of water, and an ionic surfactant. Suitable surfactants are organic surfactant selected from the group consisting of anionic surfactants, amphoteric surfactants, zwitterionic surfactants, cationic surfactants, and nonionic surfactants having an average HLB of less than or equal to about 7.

20 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 13. Document ID: US 5977036 A

L24: Entry 13 of 25

File: USPT

Nov 2, 1999

US-PAT-NO: 5977036

DOCUMENT-IDENTIFIER: US 5977036 A

TITLE: Styling shampoo compositions

DATE-ISSUED: November 2, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Guskey; Susan Marie	Montgomery	OH		

US-CL-CURRENT: 510/121; 424/70.1, 424/70.11, 424/70.12, 424/70.15, 424/70.16,  
424/70.19, 424/70.21, 424/70.24, 424/70.28, 424/70.31, 510/122, 510/123, 510/124,  
510/125, 510/127, 510/128, 510/466, 510/475

## ABSTRACT:

Disclosed are hair styling shampoo compositions which comprise from about 5% to about 50% by weight of a surfactant selected from the group consisting of anionic surfactants, zwitterionic or amphoteric surfactants having an attached group that is anionic at the pH of the composition, and combinations thereof; from about 0.025% to about 3% by weight of an organic cationic polymer having a cationic charge density of from about 0.2 meq/gm to about 7 meq/gm and a molecular weight of from about 5,000 to about 10 million; from about 0.1% to about 10% by weight of a water-insoluble hair styling polymer; from about 0.1% to about 10% by weight of a water-insoluble volatile solvent; and from about 0.005% to about 2.0% by weight a crystalline hydroxyl-containing stabilizing agent; and from about 26.5% to about 94.9% by weight water. The composition provides improved spreading efficiency of the styling polymer onto hair, thus providing improved styling performance from the shampoo composition.

28 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 14. Document ID: US 5972356 A

L24: Entry 14 of 25

File: USPT

Oct 26, 1999

US-PAT-NO: 5972356

DOCUMENT-IDENTIFIER: US 5972356 A

TITLE: Personal care compositions

DATE-ISSUED: October 26, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peffly; Marjorie Mossman	Cincinnati	OH		
Bolich, Jr.; Raymond Edward	Maineville	OH		
Rigney; Kenneth W.	Cincinnati	OH		

US-CL-CURRENT: 424/401; 424/70.1, 424/70.12

## ABSTRACT:

The present invention relates to personal care compositions suitable for styling hair, comprising from about 0.01% to about 20% of a hair styling polymer, a

polyorganosiloxane emulsion comprising a polyorganosiloxane dispersed as particles an average particle size of less than about 150 nanometers, and a surfactant system; from about 0.01% to about 10% of a silicone-polyoxyalkylene copolymer surfactant and a carrier comprising at least about 0.5% of a first solvent selected from the group consisting of water; water soluble organic solvents; organic solvents which are strongly to moderately strong in hydrogen-bonding parameter; and mixtures thereof; wherein the first solvent is other than a C.sub.1 -C.sub.3 monohydric alcohol, a C.sub.1 -C.sub.3 ketone and a C.sub.1 -C.sub.3 ether.

34 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

NAME Draw Desc Image

☐ 15. Document ID: US 5968495 A

L24: Entry 15 of 25

File: USPT

Oct 19, 1999

US-PAT-NO: 5968495

DOCUMENT-IDENTIFIER: US 5968495 A

TITLE: Personal care compositions

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond Edward	Maineville	OH		
Schrader; Elizabeth Murphy	Loveland	OH		
Logue; Russell Michael	Mason	OH		
Brotherton; Michael David	West Chester	OH		
Dalhover; Jean Patterson	Batavia	OH		

US-CL-CURRENT: 424/70.12; 424/401, 424/61, 424/70.11, 514/937, 514/938

ABSTRACT:

Relatively high VOC hair styling compositions which provide good style retention without unacceptable stickiness or stiffness are disclosed. The compositions comprise from about 0.01% to about 20% of a hair styling polymer and a carrier comprising at least about 0.5%, by weight of the composition, of a first solvent selected from the group consisting of water; water soluble organic solvents; organic solvents which are strongly to moderately strong in hydrogen-bonding parameter; and mixtures thereof; wherein the first solvent is other than a C.sub.1 -C.sub.3 monohydric alcohol, a C.sub.1 --C.sub.3 ketone and a C.sub.1 -C.sub.3 ether, wherein the composition is characterized by a FFV and a CRI wherein (FFV.sup.-1 .times.1000).gtoreq. [(-2.635.times.CRI)+36.418].

13 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

NAME Draw Desc Image

☒ 16. Document ID: US 5965115 A

L24: Entry 16 of 25

File: USPT

Oct 12, 1999

US-PAT-NO: 5965115

DOCUMENT-IDENTIFIER: US 5965115 A

TITLE: Personal care compositions

DATE-ISSUED: October 12, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond Edward	Maineville	OH		
Rigney; Kenneth Wayne	Cincinnati	OH		

US-CL-CURRENT: 424/70.12; 424/401, 424/61, 424/78.03

ABSTRACT:

Disclosed are personal care compositions which are suitable for application to the hair, skin, or nails. These compositions comprise a polyorganosiloxane emulsion comprising a surfactant and a polyorganosiloxane having an average particle size of less than about 150 nanometers; from about 0.01% to about 10% of a silicone-linear polyoxyalkylene block copolymer surfactant; and a carrier comprising (i) at least about 0.5%, by weight of the composition, of a first solvent selected from the group consisting of water, water soluble organic solvents, organic solvents which are strongly to moderately strong in hydrogen-bonding parameter, and mixtures thereof, wherein the solvent is other than a C.sub.1 -C.sub.3 monohydric alcohol, a C.sub.1 -C.sub.3 ketone, and a C.sub.1 -C.sub.3 ether, and (ii) at least about 40%, by weight of the composition, of a second solvent selected from the group consisting of C.sub.1 -C.sub.3 monohydric alcohols, C.sub.1 -C.sub.3 ketones, C.sub.1 -C.sub.3 ethers, and mixtures thereof. The silicone-polyoxyalkylene copolymer surfactant provides for improved stability of the polyorganosiloxane emulsion, especially when lower alcohols such as C.sub.1 -C.sub.3 monohydric alcohols are incorporated into the compositions.

26 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KMC Draw Desc Image

☒ 17. Document ID: US 5753216 A

L24: Entry 17 of 25

File: USPT

May 19, 1998

US-PAT-NO: 5753216

DOCUMENT-IDENTIFIER: US 5753216 A

TITLE: Hair care compositions having styling/conditioning agent and plasticizer

DATE-ISSUED: May 19, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Leitch; Steven Hilary	Maineville	OH		
Bartz; Lisa Jo	Cincinnati	OH		
Fish; Kathleen Brown	Cincinnati	OH		

US-CL-CURRENT: 424/70.12; 424/70.1, 424/70.27, 424/70.28

ABSTRACT:

Disclosed are hair care compositions containing a hair styling/conditioning copolymer solubilized or dispersed in a volatile silicone fluid, wherein the copolymer-volatile silicone fluid solution further comprises a nonvolatile plasticizer.

22 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

PMC Draw Desc Image

☒ 18. Document ID: US 5667771 A

L24: Entry 18 of 25

File: USPT

Sep 16, 1997

US-PAT-NO: 5667771

DOCUMENT-IDENTIFIER: US 5667771 A

TITLE: Rinse-off hair care compositions using grafted copolymers

DATE-ISSUED: September 16, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Carballada; Jose Antonio	Cincinnati	OH		
Thaman; Lauren Ann	Cincinnati	OH		
Clarizia; Mario Paul	Cincinnati	OH		

US-CL-CURRENT: 424/70.12; 526/279

ABSTRACT:

The present invention relates to rinse-off hair care compositions which provide styling and hair conditioning properties without the formation of a non-removable residue. The compositions comprising from about 0.25% to about 70% of a copolymer component having a drying coefficient of less than about 3%; said copolymer component comprising from about 1.5% to 70% of a silicone-grafted adhesive hair styling copolymer having a weight average molecular weight from about 300,000 to about 5,000,000 and from about 30% to about 98.5% of a hydrophobic volatile solvent.

34 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

PMC Draw Desc Image

☐ 19. Document ID: US 5665337 A

L24: Entry 19 of 25

File: USPT

Sep 9, 1997

US-PAT-NO: 5665337

DOCUMENT-IDENTIFIER: US 5665337 A

TITLE: Low residue hair care compositions using grafted copolymers

DATE-ISSUED: September 9, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Carballada; Jose Antonio	Cincinnati	OH		
Thaman; Lauren Ann	Cincinnati	OH		

US-CL-CURRENT: 424/70.12; 526/279

## ABSTRACT:

The present invention relates to rinse-off hair care compositions which provide styling and hair conditioning properties without the formation of a non-removable residue. The compositions comprise from about 0.25% to about 70% of a copolymer component comprising from about 1.5% to about 70% of a silicone-grafted adhesive hair styling copolymer having a weight average molecular weight from about 300,000 to about 5,000,000 and from about 30% to about 98.5% of a hydrophobic volatile solvent.

34 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Deso	Image
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☒ 20. Document ID: US 5658557 A

L24: Entry 20 of 25

File: USPT

Aug 19, 1997

US-PAT-NO: 5658557

DOCUMENT-IDENTIFIER: US 5658557 A

TITLE: Hair care compositions comprising silicone-containing copolymers

DATE-ISSUED: August 19, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond Edward	Maineville	OH		
Torgerson; Peter Marte	Washington Court House	OH		

US-CL-CURRENT: 424/70.12; 424/70.15, 424/78.03

## ABSTRACT:

Hair care compositions which provide improved styling and hair conditioning properties are disclosed. The compositions comprise from about 0.1% to about 10.0% of a specifically-defined silicone copolymer and from about 0.5% to about 99.5% of a carrier suitable for application to hair. These compositions are characterized by the fact that, when dried, the polymer phase separates into a discontinuous phase which includes a silicone macromer and a continuous phase which includes the copolymer backbone.

10 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Deso	Image
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☒ 21. Document ID: US 5653969 A

L24: Entry 21 of 25

File: USPT

Aug 5, 1997

US-PAT-NO: 5653969

DOCUMENT-IDENTIFIER: US 5653969 A

TITLE: Low residue hair care compositions

DATE-ISSUED: August 5, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Carballada; Jose Antonio	Cincinnati	OH		
Thaman; Lauren Ann	Cincinnati	OH		
Midha; Sanjeev	Blue Ash	OH		

US-CL-CURRENT: 424/70.16; 424/70.11, 424/70.12

## ABSTRACT:

The present invention relates to rinse-off hair care compositions that leave a low residue on the hair after repeated use. These compositions have good hair style retention properties and have a natural, non-sticky feel upon the hair. These compositions comprise a hydrophobic copolymer component and a carrier suitable for application to the hair. The copolymer component further comprises a hydrophobic copolymer and a volatile hydrophobic solvent.

17 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 22. Document ID: US 5653968 A

L24: Entry 22 of 25

File: USPT

Aug 5, 1997

US-PAT-NO: 5653968

DOCUMENT-IDENTIFIER: US 5653968 A

TITLE: Rinse-off hair care compositions

DATE-ISSUED: August 5, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Carballada; Jose Antonio	Cincinnati	OH		
Thaman; Lauren Ann	Cincinnati	OH		
Clarizia; Mario Paul	Cincinnati	OH		
Midha; Sanjeev	Blue Ash	OH		

US-CL-CURRENT: 424/70.11; 424/70.12, 424/70.16, 526/279, 526/348

## ABSTRACT:

The present invention relates to rinse-off hair care compositions that leave a low residue on the hair. These compositions have good hair style retention properties and have a natural, non-sticky feel upon the hair. These compositions comprise a hydrophobic copolymer component having a drying coefficient of less than about 3% and a carrier suitable for application to the hair. The copolymer component further comprises a hydrophobic copolymer and a volatile hydrophobic solvent. The copolymer has a cohesive breaking strength of greater than about 20 kg.sub.f /cm.sup.2, an adhesive strength of less than about 30 kg.sub.f /cm.sup.2, a cohesive breaking strain of less than about 100%, wherein the ratio of said cohesive breaking strength to said adhesive strength is greater than or equal to about 1.

17 Claims, 2 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 23. Document ID: US 5618524 A

L24: Entry 23 of 25

File: USPT

Apr 8, 1997

US-PAT-NO: 5618524

DOCUMENT-IDENTIFIER: US 5618524 A

TITLE: Hair conditioning and styling compositions

DATE-ISSUED: April 8, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond E.	Maineville	OH		
Torgerson; Peter M.	Washington Court House	OH		

US-CL-CURRENT: 424/70.12; 424/78.17, 523/105, 525/474, 528/26

## ABSTRACT:

Hair care compositions which provide improved styling and hair conditioning properties are disclosed. The compositions comprise from about 0.1% to about 10.0% of a specifically-defined silicone copolymer and from about 0.5% to about 99.5% of a carrier suitable for application to hair. These compositions are characterized by the fact that, when dried, the polymer phase separates into a discontinuous phase which includes a silicone macromer and a continuous phase which includes the copolymer backbone.

1 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 24. Document ID: US 5106609 A

L24: Entry 24 of 25

File: USPT

Apr 21, 1992

US-PAT-NO: 5106609

DOCUMENT-IDENTIFIER: US 5106609 A

TITLE: Vehicle systems for use in cosmetic compositions

DATE-ISSUED: April 21, 1992

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond E.	Maineville	OH		
Norton; Michael J.	Cincinnati	OH		
Russell; Glen D.	Loveland	OH		

US-CL-CURRENT: 424/70.12; 424/70.13, 424/70.15, 424/70.16, 514/781, 8/405

## ABSTRACT:

Disclosed is a unique vehicle system which provides a desirable rheology to products formulated therewith, enhanced dispersion of actives therein, and improved deposition of actives therefrom. This vehicle system comprises a primary thickening agent which is a nonionic long-chain alkylated water-soluble polymer, and a secondary thickening



agent which is a water-insoluble surfactant dispersed in a compatible solvent. Optionally, a rheological aid, which is a chelating agent may be included in the vehicle system. Also, optionally, a distributing aid, which is a water-soluble polymer of either high molecular weight or strong ionic character may be included in the vehicle system. These vehicle systems are useful in cosmetic compositions which are used to deliver an active component to the hair or skin. The vehicle systems are particularly useful in hair care compositions, especially rinse-off hair conditioning compositions, because they effectively deliver the hair conditioning component to the hair without depositing a substantial amount of the vehicle material onto the hair.

67 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

Full Title Citation Front Review Classification Date Reference Sequences Attachments

☐ 25. Document ID: US 5104646 A

L24: Entry 25 of 25

File: USPT

Apr 14, 1992

US-PAT-NO: 5104646

DOCUMENT-IDENTIFIER: US 5104646 A

TITLE: Vehicle systems for use in cosmetic compositions

DATE-ISSUED: April 14, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bolich, Jr.; Raymond E.	Maineville	OH		
Norton; Michael J.	Cincinnati	OH		
Russell; Glen D.	Loveland	OH		

US-CL-CURRENT: 424/70.13; 424/70.11, 424/70.12, 424/70.122, 424/70.15, 424/70.16, 424/70.17, 424/70.21, 424/70.24, 514/781, 8/405

ABSTRACT:

Disclosed is a unique vehicle system which provides a desirable rheology to products formulated therewith, enhanced dispersion of actives therein, and improved deposition of actives therefrom. This vehicle system comprises a primary thickening agent which is a nonionic long chain alkylated water-soluble polymer, and a secondary thickening agent which is a water-soluble surfactant, dispersed in a compatible solvent. Optionally, a rheological aid, which is a chelating agent may be included in the vehicle system. Also, optionally, a distributing aid, which is a water-soluble polymer of either high molecular weight or strong ionic character may be included in the vehicle system. These vehicle systems are useful in cosmetic compositions which are used to deliver an active component to the hair or skin. The vehicle systems are particularly useful in hair care compositions, especially rinse-off hair conditioning compositions, because they effectively deliver the hair conditioning component to the hair without depositing a substantial amount of the vehicle material onto the hair.

49 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments

Full Title Citation Front Review Classification Date Reference Sequences Attachments

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